

## **REMARKS**

### **CLAIM STATUS**

Claims 1-22 and 25-41 are pending in this application. Claims 23 and 24 were previously canceled without prejudice or disclaimer. Claims 1, 8, 20, 35, 36, 38, and 40 are independent. Claims 1, 8, 20, 35, 38, and 40 have been amended to better reflect the disclosure at page 13, lines 1-20, of the specification while claim 25 has been amended as suggested in the outstanding Action. Thus, the claims have been amended without the introduction of any new matter.

### **SUMMARY OF THE OFFICE ACTION**

The outstanding Office Action is a non-final Action that acknowledges the claim for foreign priority along with the receipt of the priority document by the international Bureau. It further acknowledges consideration of the references included with the IDS papers filed on September 27, 2005, October 26, 2005, December 27, 2005, June 23, 2006, September 15, 2008, and April 7, 2009. The outstanding Office Action also indicates the acceptance of the drawings filed on September 27, 2005.

In addition, the outstanding Office Action includes an objection to claim 25 and various rejections of claims 1-22 and 25-41 under 35 U.S.C. §103(a).

### **OBJECTION TO CLAIM 25**

Item 1 on page 2 of the outstanding Action presents an objection to claim 25 as containing the erroneous language “any one of” which it suggests be canceled. As the amendment to claim 25 adopts this suggestion, the withdrawal of this objection is respectfully requested.

### **35 U.S.C. §103(a) REJECTIONS**

#### **A. Claims 1-4, 8-12, And 36-38**

Item 4 on page 2 of the outstanding Action presents a rejection of claims 1-4, 8-12, and 36-38 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova et al. (U.S. Patent

Application Publication No. 2004/0111132, hereinafter “Shenderova”) in view of Skene et al. (U.S. Patent Application Publication No. 2003/0069616, hereinafter “Skene”). This rejection is traversed.

The first error in this rejection is the assertion at the top of page 3 of the outstanding Action that Shenderova “discloses *displaying* an *image* by using light of a light emitter” (emphasis added). This error is compounded by also alleging that “Figures 7-8 disclose *displaying* pixilated *images* on a thin film electroluminescent (TFEL) panel” (emphasis added). Instead of teaching any *displaying* of an *image* or *images*, the teachings of Shenderova concern a device for performing phototherapy relative to the patient’s skin or other tissue to be treated as is clear from paragraph [0065] repeated here as follows:

[0065] The present invention provides an *illuminator* for phototherapy or photodynamic therapy that can be *positioned in close proximity to or in direct contact with the tissue or skin of the patient or the light output coupled to a fiber optic catheter for in-vivo treatment*. In certain embodiments consistent with the present invention, the illuminator has a thin, lightweight TFEL panel *designed to provide uniform illumination over the area to be treated* without the use of diffusers that would attenuate a portion of the light output. A single illuminating unit can be used as a TFEL panel requiring only two electrodes with two electrical connections, and can be made as large as several inches by several inches or even several feet by several feet. This is a dramatic difference from pointed single illuminating arrays used in previous PT devices. The illuminator may be operated in a range of power and frequency that *does not generate excessive heat so that the illuminator surface may be used in contact with the patient's skin without discomfort* and without need for the use of a cooling mechanism. The illuminator can be designed to emit light with wavelengths ranging from the visible to the infrared range. Selection of the appropriate wavelength allows the optimization of the illuminator for specific treatments. (Emphasis added).

This disclosure of the Shenderova phototherapy illuminator being a device specifically designed to provide light to interact with skin and tissue is consistent with the further disclosure of paragraph [0087] that is directed to the use thereof that is repeated as follows:

[0087] To use the phototherapy device of the present invention, the process 400 illustrated in FIG. 4 can be used starting at 404. When a condition treatable by phototherapy is diagnosed at 408, the user selects a treatment protocol at 412. Using the user interface of the TFEL phototherapy device, the user enters the wavelength or spectrum prescribed by the protocol for specific treatment conditions at 416. The treatment time and intensity are similarly entered

at 420 and 424 in the user interface of the TFEL phototherapy device. The *affected area is then irradiated with light from the TFEL phototherapy device* for the prescribed time, at the prescribed wavelength or spectrum and the prescribed intensity at 428. The treatment ends at 436. (Emphasis added).

While it is true that the disclosure of paragraphs [0094]-[0097] (and that of Figs. 7 and 8) relates to an alternative embodiment of the device first described in paragraph [0094] as having “a patterned array of TFEL pixels in order to produce multiple characteristic emission lines” where “pixels can be interconnected so that all the pixels of one type can be activated simultaneously” and “two, or more, pixel types could be switched on separately to generate emission characteristic of the activated pixels,” this does not change the device from the above-noted *illuminator* for phototherapy or photodynamic therapy that can be *positioned in close proximity to or in direct contact with the tissue or skin of the patient* into a *display* device.

In this last regard, the term “pixel” as used by paragraph [0094] of Shenderova has nothing to do with a picture element associated with actual image processing. Instead, it appears to be used to describe elements making up an array, much like the term is used to describe the array of pixel elements making up a digital camera image sensor or video display. See paragraph [0095] as follows:

[0095] FIG. 7 illustrates one embodiment that uses arrays of pixels in a prescribed pattern to produce multiple spectra of light emissions. In this embodiment, a checkerboard pattern is used with alternating segments of doped electroluminescent material being doped with two different dopants. For example, a first dopant can be used to dope segments 702 (represented by the white squares), while a second dopant can be used to dope segments 706 (represented by the hashed squares) in *the same manner used to create pixels in a video display*. (Emphasis added).

Simply because the noted “arrays of pixels in a prescribed pattern to produce multiple spectra of light emissions” of doped segments 702 and 706 similar to doped segments actually used as pixels in a true video display, this does not turn doped segments 702 and 706 that are only taught to be used as multiple spectra light sources into actual video display elements.

It is clearly well established that the “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the

time of the invention, *i.e.*, as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (*en banc*). *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003); *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003) ("In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.").

In addition, the meanings of "display" and "image" cannot be determined using an interpretation that is foreign to the use in the specification because it is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the "ordinary" and the "customary" meaning of the terms in the claims. *See Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003) in which dictionary definitions were used to determine the ordinary and customary meaning of the words "normal" and "predetermined" to those skilled in the art. Here the court was clear that in construing claim terms, the general meanings gleaned from reference sources, such as dictionaries, must always be compared against the use of the terms in context, and the intrinsic record must always be consulted to identify which of the different possible dictionary meanings is most consistent with the use of the words by the inventor.

Submitted with this response are dictionary definitions of the terms "display" and "image" that include a highlighted definition that is most consistent with the use of these terms in the context of this application and clearly has nothing to do with the above-noted Shenderova *illuminator* for phototherapy or photodynamic therapy that can be *positioned in close proximity to or in direct contact with the tissue or skin of the patient*. Clearly, Shenderova has no teaching of any "display" device or of the affects of any biorhythm being increased or decreased relative to an input video signal as required by amended independent claim 1.

Besides the fact that the Shenderova *illuminator* for phototherapy or photodynamic therapy that can be *positioned in close proximity to or in direct contact with the tissue or skin of the patient* is not a "display" device and does not operate "for displaying an image by using light of a light emitter," there is no teaching or suggestion of the operation that is merely

presented as possible in the speculative comments at page 3, lines 7-12 of the outstanding Action. The speculation offered is that only one of the segments 702 (represented by the white squares of Fig. 7) or segments 706 (represented by the hashed squares of Fig.) could be switched on and then have the intensity of light it produces varied, all because the Examiner says this is a possibility. Such a hypothetical possibility is just that, a possibility built on conjecture and assumptions. However, binding precedent requires that the PTO produce actual evidence, not such conjecture. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967) (“The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not . . . resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.”).

In any event, amended claim 1 is not subject to the conjecture of some unexplained reason to operate the Shenderova *illuminator* for phototherapy or photodynamic therapy with only one of the segments 702 (represented by the white squares of Fig. 7) or segments 706 (represented by the hashed squares of Fig.7) emitting light as it requires that “an intensity of the light having the wavelength which affects the biorhythm is increased or decreased relative to an input video signal at a higher rate than an intensity of light having another wavelength that has no affect on biorhythm.”

Turning to independent claim 8, it is noted that this independent claim specifically recites, among other things, that “the image display section including pixels each of which has a plurality of light emitters.” Even if the teachings of the Shenderova *illuminator* for phototherapy or photodynamic therapy with only segments 702 (represented by the white squares of Fig. 7) or segments 706 (represented by the hashed squares of Fig.7) present could somehow be interpreted to be performing some kind of display function, an impossibility, these segments are the only light emitting elements that can be equated to “pixels” and these “pixels” 702 (represented by the white squares of Fig. 7) or 706 (represented by the hashed squares of Fig.7) are not taught or suggested to each have “a plurality of light emitters” as independent claim 8 requires.

Furthermore, independent claim 8 also requires “a characteristic of a luminous intensity of the first light emitter with respect to a video signal inputted into the image display section is switched, so that an amount of light of the first light emitter is increased or decreased at a higher

rate than another light emitter for emitting light having another wavelength that has no affect on biorhythm.” Lines 14-21 of page 5 of the outstanding Action completely ignore the requirement that there has to be “a video signal inputted into the image display section” and that the switching of the “characteristic of a luminous intensity of the first light emitter” must occur relative to this “video signal.”

It is well established that each word of every claim must be given weight. *See In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The outstanding action cannot ignore the above-noted limitations of independent claim 8.

Similarly, the language at the end of independent claim 36 has been ignored. In this respect, the end of independent claim 36 recites, *inter alia*, that “an intensity of the light having the wavelength is changed ***by selecting on a user's instruction a target control pattern from among a plurality of control patterns of controlling the intensity of the light having the wavelength, the plurality of control patterns corresponding to times***” (emphasis added). The bottom of page 7 of the outstanding Action notes this requirement including the requirement as to “***the plurality of control patterns corresponding to times***,” but does not explain how the noted paragraph [0087] and relied on Figs. 7 and 8 teach these features. To whatever extent that paragraph [0087] teaches that “the user enters the wavelength or spectrum prescribed by the protocol for specific treatment conditions at 416,” this is not the same thing as “***selecting on a user's instruction a target control pattern from among a plurality of control patterns of controlling the intensity of the light having the wavelength, the plurality of control patterns corresponding to times***” (emphasis added). Claim 36 requires far more than the mere selecting a treatment protocol as noted in the phrase bridging pages 7 and 8 of the outstanding Action and the target control pattern or the recited plurality of control patterns cannot be equated to the fixed pattern of different pixel dopants of Fig. 7 or the fixed pattern of dopant columns of Fig. 8 that do not in any way “***correspond to times***.”

Also, the language at the end of amended independent claim 38 clearly defines over the Shenderova *illuminator* for phototherapy or photodynamic therapy with or without segments 702 (represented by the white squares of Fig. 7) or segments 706 (represented by the hashed squares of Fig.7) being present. In this respect, amended independent claim specifically requires

“controlling an intensity of the light having the wavelength that affects a biorhythm, so that the biorhythm is regulated while the image is displayed on a display surface of the display device using the light having the wavelength that affects a biorhythm” (emphasis added).

Moreover, the rationales offered as to independent claims 8, 36, and 38 repeat the interpretation errors noted above as to the independent claim 1 terms “displaying an image” and the above-noted improper conjecture as to the operation of the Shenderova *illuminator* for phototherapy or photodynamic therapy.

With regard to each of independent claims 1, 8, 36, and 38, the artisan would have no reason to attempt to modify the Shenderova *illuminator* for phototherapy or photodynamic therapy purposes by the Skene teachings of controlling the alertness of a human subject with the Skene light source(s). This lack of a rational basis to suggest the proposed modification defies recent Supreme Court precedent, *see KSR Int’l v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) that “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

Besides lacking the required “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness,” the outstanding Action also violates the guidelines of MPEP 706.02(j) that requires that in order to support a rejection under 35 U.S.C. 103(a), the examiner is to identify the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter. In this respect, the question is how the completely different Shenderova *illuminator* for phototherapy or photodynamic therapy would have been modified in light of the completely different Skene teachings of controlling the alertness of a human subject with the Skene light source or sources.

As the Skene reference further corrects for none of the above-noted Shenderova deficiencies and as the artisan would have no reason to try to combine the teachings of these clearly disparate references, the rejection of independent claims 1, 8, 36, and 38 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene is clearly improper and should be withdrawn.

Claims 2-4 depend from claim 1, claims 9-12 variously depend from claim 8, and claim 37 depends from claim 36. Therefore, dependent claims 2-4, 9-12, and 37 are respectfully submitted to be patentable over the combination of Shenderova in view of Skene for at least those reasons presented above with respect to respective independent claims 1, 8, and 36. Reconsideration and withdrawal of the rejection of dependent claims 2-4, 9-12, and 37 under 35 U.S.C. § 103(a) over these references is therefore also respectfully requested.

### **B. Claims 5 And 13**

Item 5 on page 9 of the outstanding Action presents a rejection of claims 5 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene in further view of Kerr et al. (U.S. Patent No. 7, 236, 154, hereinafter “Kerr”). This rejection is traversed.

Kerr is cited as to the subject matter added by dependent claims 5 and 13 and does not cure the deficiencies noted above as to the reliance on Shenderova in view of Skene as to respective parent independent claims 1 and 8.

Accordingly, it is respectfully submitted that dependent claims 5 and 13 patentably define over the applied references for at least the same reason that respective parent independent claims 1 and 8 do and withdrawal of this improper rejection of dependent claims 5 and 13 under 35 U.S.C. §103(a) as being allegedly unpatentable over Shenderova in view of Skene in further view of Kerr is respectfully requested.

### **C. Claims 6, 7, And 14-19**

Item 6 on page 10 of the outstanding Action presents a rejection of claims 6, 7, and 14-19 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene in further view of Stam et al. (U.S. Patent Application Publication No. 2004/0047624, hereinafter “Stam”). This rejection is traversed.

Stam is cited as to the subject matter added by dependent claims 6, 7, and 14-19 and does not cure the deficiencies noted above as to the reliance on Shenderova in view of Skene as to respective parent independent claims 1 and 8.



Accordingly, it is respectfully submitted that dependent claims 6, 7, and 14-19 patentably define over the applied references for at least the same reason that respective parent independent claims 1 and 8 do and withdrawal of this improper rejection of dependent claims 6, 7, and 14-19 under 35 U.S.C. §103(a) as being allegedly unpatentable over Shenderova in view of Skene in further view of Stam is respectfully requested.

**D. Claims 20, 31-33, 35, And 39-41**

Item 7 on page 13 of the outstanding Action presents a rejection of claims 20, 31-33, 35, and 39-41 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene in further view of Hecker (U.S. Patent No. 5,426,879). This rejection is traversed.

Amended independent claim 20 recites, *inter alia*, that “a luminous intensity of the first light emitter is switched so that an amount of light of the first light emitter is increased or decreased at a higher rate than another light emitter for emitting light having another wavelength that has no affect on biorhythm.” Therefore, amended independent claim 20 is similar to amended independent claim 1 in terms of requiring the presence of light having both a biorhythm wavelength and a non-biorhythm wavelength. Thus, the above-noted conjecture in the outstanding Action as to operating the Shenderova light emitting segments 705 or 706 so that one is off while the other one is being controlled to emit light is once again insufficient to meet the claim 20 limitation.

As nothing in Skene or Hecker correct the deficiencies of Shenderova and as the artisan would have no reason to try to combine the teachings of these clearly disparate references, the rejection of independent claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene and Hecker is clearly improper and should be withdrawn.

Claims 31-33 and 39 variously depend from independent claim 20. Therefore, dependent claims 31-33 and 39 are respectfully submitted to be patentable over the combination of Shenderova in view of Skene and Hecker for at least those reasons presented above with respect to amended independent claim 20. Reconsideration and withdrawal of the rejection of dependent claims 31-33 and 39 under 35 U.S.C. § 103(a) is therefore also respectfully requested.

Amended independent claim 35 requires “a control means for controlling the transmittance controlling means for causing an amount of the light from the light source being passed by the transmittance means to change based on the light wavelength so that the image display section is irradiated with the light from the transmittance control means.” There are no corresponding teachings or suggestions in any of the applied references.

As nothing in Shenderova, Skene, or Hecker even teach the limitations of independent claim 35 and as the artisan would have no reason to try to combine the teachings of these clearly disparate references and the outstanding Action presents no reasons in support of their combination as to rejecting independent claim 35, the rejection of independent claim 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene and Hecker is clearly improper and should be withdrawn.

Turning to independent claim 40, it is noted that this claim is like independent claims 1 and claim 20 in that the luminous intensity of the first light emitter must be “switchable relative to an input video signal independently of the white light emitter that emits having another wavelength that has no affect on biorhythm.” Thus, the above-noted outstanding Action conjecture as to operating the Shenderova light emitting segments 705 or 706 so that one is off while the other one is being controlled to emit light is once again insufficient to teach or suggest the amended independent claim 40 limitation just as it was insufficient to teach or suggest the similar language of independent claims 1 and 20 in this respect.

As nothing in Skene or Hecker correct this deficiencies of Shenderova and as the artisan would have no reason to try to combine the teachings of these clearly disparate references and the outstanding Action presents no reasons in support of their combination as to the rejection of independent claim 40, the rejection of independent claim 40 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene and Hecker is clearly improper and should be withdrawn.

Claim 41 depends from independent claim 40. Therefore, dependent claim 41 is respectfully submitted to be patentable over the combination of Shenderova in view of Skene and Hecker for at least those reasons presented above with respect to amended independent claim 40.

Reconsideration and withdrawal of the rejection of dependent claim 41 under 35 U.S.C. § 103(a) is therefore also respectfully requested.

**E. Claims 21, 22, And 25-30**

Item 8 on page 19 of the outstanding Action presents a rejection of claims 21, 22, and 25-30 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene and Hecker in further view of Stam. This rejection is traversed.

Stam is cited as to the subject matter added by dependent claims 21, 22, and 25-30 and does not cure the deficiencies noted above as to the reliance on Shenderova in view of Skene and Hecker as to parent independent claim 20.

Accordingly, it is respectfully submitted that dependent claims 21, 22, and 25-30 patentably define over the applied references for at least the same reason that parent independent claim 20 does and withdrawal of this improper rejection of dependent claims 21, 22, and 25-30 under 35 U.S.C. §103(a) as being allegedly unpatentable over Shenderova in view of Skene and Hecker in further view of Stam is respectfully requested.

**F. Claim 34**

Item 9 on page 22 of the outstanding Action presents a rejection of claim 34 under 35 U.S.C. § 103(a) as being unpatentable over Shenderova in view of Skene and Hecker in further view of Kerr. This rejection is traversed.

Kerr is cited as to the subject matter added by dependent claim 34 and does not cure the deficiencies noted above as to the reliance on Shenderova in view of Skene and Hecker as to parent independent claim 20.

Accordingly, it is respectfully submitted that dependent claim 34 patentably defines over the applied references for at least the same reason that parent independent claim 20 does and withdrawal of this improper rejection of dependent claim 34 under 35 U.S.C. §103(a) as being allegedly unpatentable over Shenderova in view of Skene and Hecker in further view of Kerr is respectfully requested.

**CONCLUSION**

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Raymond F. Cardillo, Jr., Reg. No. 40,440 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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